

Wolfgang Ketterle has been the John D. MacArthur professor of physics at MIT since 1998. He leads a research group exploring the properties of ultracold gases. His research is in the field of atomic physics and laser spectroscopy and includes laser cooling and trapping, atom optics and atom interferometry, and studies of Bose-Einstein condensation and Fermi degeneracy. A major focus is the exploration of new forms of matter, in particular novel aspects of superfluidity, coherence, and correlations in many-body systems. His observation of Bose-Einstein condensation in a gas in 1995 and the first realization of an atom laser in 1997 were recognized with the Nobel Prize in Physics in 2001 (together with E.A. Cornell and C.E. Wieman). He received a diploma (equivalent to master's degree) from the Technical University of Munich (1982), the Ph.D. in physics from the University of Munich (1986). He did postdoctoral work at the Max-Planck Institute for Quantum Optics in Garching and at the University of Heidelberg in molecular spectroscopy and combustion diagnostics. In 1990, he came to MIT as a postdoc and joined the physics faculty in 1993.

His honors include the Rabi Prize of the American Physical Society (1997), the Gustav-Hertz Prize of the German Physical Society (1997), the Fritz London Prize in Low Temperature Physics (1999), the Dannie-Heineman Prize of the Academy of Sciences, Göttingen, Germany (1999), the Benjamin Franklin Medal in Physics (2000), the Knight Commander's Cross (Badge and Star) of the Order of Merit of the Federal Republic of Germany (2002), the MIT Killian Award (2004), and memberships in several Academies of Sciences. He holds Honorary Degrees from Gustavus Adolphus College, St. Peter (2005), the University of Connecticut (2007), and Ohio State University (2007).